

## SEQUENCE LISTING

<110> Pan, Shuchong  
Simari, Robert D.

<120> Isoforms of Brain Natriuretic Peptide

<130> 07039-409US1

<140> US 10/561,014  
<141> 2005-12-16

<150> PCT/US2004/017554  
<151> 2004-06-02

<150> US 60/480,460  
<151> 2003-06-20

<160> 38

<170> FastSEQ for Windows Version 4.0

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<211> 33  
<212> PRT  
<213> Homo sapiens

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1 5 10 15  
Asp Thr Val Arg Val Thr Leu Gly Phe Val Val Ser Gly Asn His Thr  
20 25 30  
Leu

<210> 2  
<211> 14  
<212> PRT  
<213> Homo sapiens

<400> 2  
Val Val Gln Lys Glu Asn Gln Thr Phe Pro Pro Gly Phe Leu  
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<210> 3  
<211> 162  
<212> PRT  
<213> Homo sapiens

<400> 3  
Met Asp Pro Gln Thr Ala Pro Ser Arg Ala Leu Leu Leu Leu Phe  
1 5 10 15  
Leu His Leu Ala Phe Leu Gly Gly Arg Ser His Pro Leu Gly Ser Pro  
20 25 30  
Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly Leu Gln Glu Gln Arg Asn

35	40	45
His Leu Gln Gly Lys Leu Ser Glu Leu Gln Val Glu Gln Thr Ser Leu		
50	55	60
Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr Gly Val Trp Lys Ser Arg		
65	70	75
Glu Val Ala Thr Glu Gly Ile Arg Gly His Arg Lys Met Val Leu Tyr		
85	90	95
Thr Leu Arg Ala Pro Arg Ser Pro Lys Met Val Gln Gly Ser Gly Cys		
100	105	110
Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Gly Leu Gly Cys		
115	120	125
Lys Gly Lys His Pro Leu Pro Pro Arg Pro Pro Ser Pro Ile Pro Val		
130	135	140
Cys Asp Thr Val Arg Val Thr Leu Gly Phe Val Val Ser Gly Asn His		
145	150	155
Thr Leu		160

<210> 4  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 4			
Met Asp Pro Gln Thr Ala Pro Ser Arg Ala Leu Leu Leu Leu Phe			
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Leu His Leu Ala Phe Leu Gly Gly Arg Ser His Pro Leu Gly Ser Pro			
20	25	30	
Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly Leu Gln Glu Gln Arg Asn			
35	40	45	
His Leu Gln Gly Lys Leu Ser Glu Leu Gln Val Glu Gln Thr Ser Leu			
50	55	60	
Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr Gly Val Trp Lys Ser Arg			
65	70	75	80
Glu Val Ala Thr Glu Gly Ile Arg Gly His Arg Lys Met Val Leu Tyr			
85	90	95	
Thr Leu Arg Ala Pro Arg Ser Pro Lys Met Val Gln Gly Ser Gly Cys			
100	105	110	
Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Gly Leu Gly Cys			
115	120	125	
Lys Val Val Gln Lys Glu Asn Gln Thr Phe Pro Pro Gly Phe Leu			
130	135	140	

<210> 5  
 <211> 489  
 <212> DNA  
 <213> Homo sapiens

<400> 5		
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ttcctggag gtcgttccca cccgctggc agccccgtt cagcctcgga cttggaaacg		120
tccgggttac aggagcagcg caaccatgg cagggcaaac tgcggagct gcaggtggag		180
cagacatccc tggagccctt ccaggagagc ccccgtccca caggtgtctg gaagtcccg		240
gaggttagcca ccgaggccat ccgtgggcac cgcaaatgg tccctctacac cctgcgggca		300
ccacgaagcc ccaagatgtt gcaagggtct ggctgctttg ggaggaagat ggaccggatc		360
agctcctcca gtggcctggg ctgcaaaggt aagcaccccc tgccaccccg gccccttcc		420
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<210> 6  
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<212> DNA  
<213> Homo sapiens

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tccgggttac aggagcagcg caaccattt cagggcaaac tgcggagct gcaggtggag 180  
cagacatccc tggagccctt ccaggagagc cccgttcca caggtgtctg gaagtcccg 240  
gaggtagcca ccgaggcat ccgtggcac cgaaaaatgg tctctacac cctgcggca 300  
ccacgaagcc ccaagatggt gcaagggtct ggctgtttt ggaggaagat ggaccggatc 360  
agctcctcca gtggcctggg ctgcaaagtg gtgcagaaag agaaccac attcctcct 420  
ggttcctct aa 432

<210> 7  
<211> 44  
<212> PRT  
<213> Pongo pygmaeus

<400> 7  
Gly Glu His Pro Leu Pro Pro Arg Leu Pro Ala Pro Ile Pro Val Cys  
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Asp Thr Val Arg Val Thr Leu Gly Phe Val Val Ser Gly Asn His Thr  
20 25 30  
Leu Arg Lys Cys His Leu Asp Ile Thr Ser Ser Cys  
35 40

<210> 8  
<211> 58  
<212> PRT  
<213> Sus scrofa

<400> 8  
Gly Glu His Pro Pro Pro Phe Pro Leu His Ala Pro Val Ser Ile Thr  
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Ser Gly Phe Asp Val Ser Gly Asp Gln Thr Pro Arg Lys Gly His Leu  
20 25 30  
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35 40 45  
Leu Glu Lys Leu Asn Leu Asp Ser Ile His  
50 55

<210> 9  
<211> 33  
<212> PRT  
<213> Pan troglodytes

<400> 9  
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20 25 30  
Leu

<210> 10  
 <211> 78  
 <212> PRT  
 <213> Ovis aries

<400> 10  
 Gly Glu Arg Leu Ser Ala Phe Pro Leu His Ile Thr Ile Arg Ala Thr  
 1 5 10 15  
 Ser Gly Ser Asp Val Ser Gly Asp Gln Ile Leu Asn Lys Glu His His  
 20 25 30  
 Ser Ser Leu Ala Val Leu Arg Ala Lys Ala Cys Leu Ser Gly Asn  
 35 40 45  
 Ile Lys Phe Gly Gln His Ser Leu Ser Cys Leu Gly Ala Pro Ser Ile  
 50 55 60  
 His Leu Leu Pro Leu Thr Glu Arg Gly Arg Ile Phe Arg Met  
 65 70 75

<210> 11  
 <211> 26  
 <212> PRT  
 <213> Mus musculus

<400> 11  
 Gly Glu His Leu Pro Cys His Phe Pro Ala Lys Leu His Thr His Pro  
 1 5 10 15  
 Ile Pro Val His Ala Thr Leu Arg Gly Pro  
 20 25

<210> 12  
 <211> 33  
 <212> PRT  
 <213> Gorilla gorilla

<400> 12  
 Gly Glu His Pro Leu Pro Pro Arg Pro Pro Ser Pro Ile Pro Val Cys  
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 Asp Thr Val Arg Val Thr Leu Gly Phe Val Val Ser Gly Asn His Thr  
 20 25 30  
 Leu

<210> 13  
 <211> 86  
 <212> PRT  
 <213> Felis catus

<400> 13  
 Gly Lys Pro Pro Pro Cys Gln Leu Asp Pro Pro Ala Pro Leu Leu Trp  
 1 5 10 15  
 Val Pro Pro Ser Glu Pro Leu Leu Gly Leu Leu Ser Leu Gly Thr Asn  
 20 25 30  
 Ser Glu Lys Lys Thr Leu Gly Leu Tyr Ser Leu Leu Leu Thr Val Leu  
 35 40 45  
 Lys Ala Lys Gly Arg Leu Ser Gly Asn Ile Lys Cys Gly His His Ser  
 50 55 60  
 Leu Leu Cys Pro Pro Arg Val Thr His Leu Leu Leu Pro Leu Trp Pro

65	70	75	80
Lys	Gly	Ala	Glu
		Ser	Pro
		85	

<210> 14  
 <211> 169  
 <212> PRT  
 <213> Canis familiaris

<400> 14  
 Met Glu Pro Cys Ala Ala Leu Pro Arg Ala Leu Leu Leu Leu Phe  
 1 5 10 15  
 Leu His Leu Ser Pro Leu Gly Gly Arg Pro His Pro Leu Gly Gly Arg  
 20 25 30  
 Ser Pro Thr Ser Glu Ala Ser Glu Ala Ser Glu Ala Ser Gly Leu Trp  
 35 40 45  
 Ala Val Gln Glu Leu Leu Gly Arg Leu Lys Asp Ala Val Ser Glu Leu  
 50 55 60  
 Gln Ala Glu Gln Leu Ala Leu Glu Pro Leu His Arg Ser His Ser Pro  
 65 70 75 80  
 Ala Glu Ala Pro Glu Ala Gly Glu Arg Pro Val Gly Val Leu Ala  
 85 90 95  
 Pro His Asp Ser Val Leu Gln Ala Leu Arg Arg Leu Arg Ser Pro Lys  
 100 105 110  
 Met Met His Lys Ser Gly Cys Phe Gly Arg Arg Leu Asp Arg Ile Gly  
 115 120 125  
 Ser Leu Ser Gly Leu Gly Cys Asn Gly Lys Pro Pro Pro Cys His Leu  
 130 135 140  
 Gly Ser Pro Ser Pro Ala Pro Trp Val Arg Pro Leu Glu Pro Leu Leu  
 145 150 155 160  
 Gly Leu Leu Ser Arg Gly Ile Thr Leu  
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<210> 15  
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 <212> PRT  
 <213> Dendoaspis angusticeps

<400> 15  
 Pro Ser Leu Arg Asp Pro Arg Pro Asn Ala Pro Ser Thr Ser Ala  
 1 5 10 15

<210> 16  
 <211> 32  
 <212> PRT  
 <213> Homo sapiens

<400> 16  
 Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
 1 5 10 15  
 Arg Ile Ser Ser Ser Gly Leu Gly Cys Lys Val Leu Arg Arg His  
 20 25 30

<210> 17  
 <211> 41  
 <212> PRT  
 <213> Dendroaspis angusticeps

<400> 17  
 Glu Val Lys Tyr Asp Pro Cys Phe Gly His Lys Ile Asp Arg Ile Asn  
 1 5 10 15  
 His Val Ser Asn Leu Gly Cys Pro Ser Leu Arg Asp Pro Arg Pro Asn  
 20 25 30  
 Ala Pro Ser Thr Ser Ala Asp Asn Pro  
 35 40

<210> 18  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<400> 18  
 Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met Asp Arg Ile Gly  
 1 5 10 15  
 Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr  
 20 25

<210> 19  
 <211> 22  
 <212> PRT  
 <213> Homo sapiens

<400> 19  
 Gly Leu Ser Lys Gly Cys Phe Gly Leu Lys Leu Asp Arg Ile Gly Ser  
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 Met Ser Gly Leu Gly Cys  
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<210> 20  
 <211> 34  
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<220>  
 <223> exemplary motif

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 <223> Xaa = Glu or Lys

<221> VARIANT  
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 <223> Xaa = Pro, His, or Arg

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 <222> 4  
 <223> Xaa = Pro or Leu

<221> VARIANT  
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 <223> Xaa = Pro, Leu, or Ser

<221> VARIANT  
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<223> Xaa = Cys or Pro

<221> VARIANT  
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<223> Xaa = Pro, His, Gln, or Arg

<221> VARIANT  
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<223> Xaa = Ser, Pro, or Leu

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<222> 11  
<223> Xaa = Pro or absent

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<223> Xaa = Ser, Ala, or absent

<221> VARIANT  
<222> 13  
<223> Xaa = Pro or Ala

<221> VARIANT  
<222> 14  
<223> Xaa = Ala, Phe, Ile, or Leu

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<223> Xaa = Pro, Lys, or Leu

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<223> Xaa = Val, Leu, or Trp

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<223> Xaa = Asp, Ala, Ile, Thr, Pro, or Arg

<221> VARIANT  
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<223> Xaa = Thr, Pro, or His

<221> VARIANT  
<222> 20



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<400> 21
agacatggat ccccagacag 20

<210> 22
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<220>
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<400> 22
caagaggaag cgatgtccag 20

<210> 23
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<220>
<223> Primer

<400> 23
ttctctccag cgacatggag 20

<210> 24
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<220>
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<400> 24
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<210> 25
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cttcttgcat ctggcttcc 20  
  
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<212> PRT	
<213> Homo sapiens	
<400> 35	
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20 25 30	
Asn Gln Thr Phe Pro Pro Gly Phe Leu	

35

40

<210> 36  
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 <212> PRT  
 <213> Homo sapiens

<400> 36  
 Ser Pro Lys Met Val Gln Gly Ser Gly Cys Phe Gly Arg Lys Met Asp  
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 Arg Ile Ser Ser Ser Gly Leu Gly Cys Lys Gly Lys His Pro Leu  
 20 25 30  
 Pro Pro Arg Pro Pro Ser Pro Ile Pro Val Cys Asp Thr Val Arg Val  
 35 40 45  
 Thr Leu Gly Phe Val Val Ser Gly Asn His Thr Leu  
 50 55 60

<210> 37  
 <211> 32  
 <212> PRT  
 <213> Canis familiaris

<400> 37  
 Gly Lys Pro Pro Pro Cys Arg Leu Gly Ser Pro Ser Pro Ala Pro Trp  
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 Val Arg Pro Leu Glu Pro Leu Leu Gly Leu Leu Ser Arg Gly Ile Thr  
 20 25 30

<210> 38  
 <211> 510  
 <212> DNA  
 <213> Canis familiaris

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 gtttcagagc tgcaggcaga gcaaggcc 25 30  
 ctggaaacccc tgccaccggag ccacagcccc 240  
 gcagaagccc cggaggccgg ggaggaacgc cccgtgggg tccttgaccc ccatgacagt 300  
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